UNITED STATES PATENT AND TRADEMARK OFFICE

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MILIA, MARK R

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte ERIC LAWRENCE BARSNESS, CARY LEE BATES, MAHDAD
MAJD, and JOHN MATTHEW SANTOSUOSSO

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Appeal 2009-004962
Application 10/624,852
Technology Center 2600

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Decided: February 12, 2010

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Before JAMES T. MOORE, *Vice Chief Administrative Patent Judge*,
KENNETH W. HAIRSTON, and KARL D. EASTHOM, *Administrative
Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal[1] under 35 U.S.C. § 134(a) from the final rejection

of claims 1, 5-10, 14-17, 23, and 24. No other claims are pending. (*See* Br.

2.) We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention analyzes digital images for consumer

identifying characteristics and generates advertisements based on those

characteristics. (Abstract, Fig.1.) According to claim 1, the analysis

involves recognizing objects and text within a digital image and reading

consumer characteristic metadata associated with that image. Claim 1

follows:

> 1.   An apparatus, comprising:
>   at least one processor;
>   a memory coupled to the at least one processor;
>   at least one digital image residing in the memory;
> and
>   an advertising generator residing in the memory
> and executed by the at least one processor, the
> advertising generator analyzing a selected digital image
> for one or more consumer identifying characteristics, and
> generating an advertisement targeted to a consumer based
> on the one or more consumer identifying characteristics,
>   wherein the analyzing of the selected digital image
> involves object recognition within the selected digital
> image, text recognition within the selected digital image,
> and reading consumer characteristic metadata associated
> with the digital image.

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[1] This opinion refers to Appellants' Brief [hereinafter "Br."] and the
Examiner's Answer [hereinafter "Ans."].

The Examiner relies on the following prior art references:

McIntyre   US 6,958,821 B1   Oct. 25, 2005

Davis   US 6,965,682 B1   Nov. 15, 2005

The Examiner rejected claims 1, 5-10, 14-17, 23, and 24 as obvious under 35 U.S.C. § 103(a) based on McIntyre and Davis. The Examiner also relied on admitted prior art disclosed by Appellants.

ISSUE

Appellants (Br. 5-9) contest the Examiner's finding (Ans. 3-4, 8-10) that the cited references and admitted prior art collectively teach "reading consumer characteristic metadata associated with the digital image," as required by independent claims 1, 10, and 17. Appellants do not present separate patentability arguments for the remaining claims. (Br. 8.) Accordingly, claim 1 is selected to represent the claims on appeal. *See* 37 C.F.R. § 41.37(c)(1)(vii). Appellants' contentions raise the following issue: Did Appellants show that the Examiner erred in finding that McIntyre, Davis, and admitted prior art, collectively teach "reading consumer characteristic metadata associated with the digital image," as set forth in claim 1?

FINDINGS OF FACT (FF)

Davis

1. Davis states that "digital watermark technology has numerous applications beyond its traditional role of simply communicating copyright information. One futuristic view foresees that all 'content' should be watermarked, thereby enabling a great variety of operations . . . ." (Davis, col. 1, ll. 28-32.)

2. Davis describes photographing a magazine advertisement that contains watermark payload data pointing to a higher resolution copy of the advertisement on an Internet server. The photographer can thereafter download the higher resolution copy. (Col. 2, ll. 19-44.)

3. The watermark payload data may also point to other enhanced content including video, animation, sound, executable applications, and other similar content associated with the digital image. (Col. 3, ll. 3-37.)

Appellants' Disclosure

4. Appellants describe prior art watermarking technology as including metadata embedded within a digital image:

> Digital watermarking technology is a well-known technique for hiding or embedding information (such as metadata) within a digital image. The *embedded information (such as the photographer's name, location*, and photograph characteristics) is invisible. However, it can be detected or extracted with special computer routines. The information in a digital watermark can indicate the origin of a digital picture. It also can function as a label that "tells" computer programs (or other digital files) whether and how to use that picture. Digital watermarking is discussed in: S.J. Daly, J. R. Squilla, M. Denber, C. W. Honsinger, and J. Hamilton, "Method for Embedding Digital Information in an Image", U. S. Patent 5,859,920, 1999. It is anticipated that other methods in addition to digital watermarking may be employed to embed metadata and *other interesting consumer characteristic information* within digital image files, and that such methods would still remain within the scope and spirit of the present invention.

(Spec. 10:15-28 (emphasis added).)

5. With respect to Appellants' disclosed invention, Appellants describe consumer related information (stored as metadata) as including a

consumer's name and address. This information can be used to generate a direct mail database of consumers. (Spec. 12:19-27.)

Appellants also indicate that a consumer's name suffices as consumer related metadata: "By knowing the name of the consumer, merchants can also create coupons and other advertisements which are addressed specifically to the holder of the coupon." (Spec. 12:27 to 13:2.) As another example, Appellants also indicate that GPS coordinates or other types of location data constitute consumer related metadata: "[I]f metadata is contained within digital image 112 which indicates that the digital photograph was taken at Disneyland[TM] (i.e., determined by either by text or GPS locational coordinates), an advertisement is generated . . . ." (Spec. 11:28 to 12:1.)

PRINCIPLES OF LAW

The Examiner bears an initial burden of factually supporting any rejection. On appeal, Appellants may rebut the Examiner's findings with opposing evidence or argument. *See In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992). Appellant has the burden on appeal to show reversible error by the Examiner in maintaining the rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii).

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citation omitted). Obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Oetiker*, 977 F.2d at 1445.

ANALYSIS

While Appellants assert that Davis's (FF 1-3) and other known (FF 4) watermarking systems fail to satisfy the disputed metadata element of claim 1, Appellants do not contest the Examiner's finding (Ans. 3-4, 8-9) that it would have been obvious to modify McIntyre's intelligent advertising system to include these known watermarking systems.

Appellants' position follows: "Appellants readily admit that digital watermarking technology is a well-known technique for hiding or embedding information (such as metadata) within a digital image (see page 10, lines 15-16 of the present invention). However, the present invention and the Davis reference read and process totally different types of metadata information." (Br. 7.) "Simply stated, the metadata utilized by Davis is 'image characteristic' rather than 'consumer characteristic' as in the present invention." (*Id.*) "Examples of 'consumer characteristic' metadata, as defined by the present invention, include the name and address of the person generating the image . . . ." (*Id.*)

Notwithstanding Appellants' arguments, Appellants admit that known prior art watermark metadata typically included, *inter alia*, a photographer's name and location. (FF 4; *see also* Br. 7 (quoted *supra*, referring to admission).) Appellants' Specification also indicates that a photographer's name constitutes "*interesting consumer characteristic information* within digital image files." (FF 4.) Another portion of Appellants' Specification bolsters the finding that a consumer's name, without more, suffices as consumer characteristic information: "By knowing the name of a consumer, merchants can also create coupons and other advertisements which are addressed specifically to the holder of the coupon." (FF 5.)

In light of Appellants' Specification, "reading consumer characteristic metadata associated with the digital image" as recited in claim 1 is broad enough to require reading only an author's name embedded in a photograph watermark (i.e., the author being the consumer who captured the photograph). Davis cumulatively states that "digital watermark technology has numerous applications beyond its traditional role of simply communicating copyright information." (FF 1.) (Copyright data includes the name of the author (i.e., the photographer)).[2] Even if an embedded name does not satisfy the disputed claim limitation, as stated *supra*, Appellants also admit that name and location data were typically embedded in a photograph.

It follows that reading the prior art (in Davis or as admitted) watermark copyright data and/or location data satisfies the disputed limitation in claim 1. Combining Davis's and McIntyre's systems of reading photographic data amounts to no "more than the predictable use of prior art elements according to their established functions." *KSR*, 550 U.S. at 417.

Appellants' argument that "no one has used the 'consumer characteristic' metadata . . . to later direct tailored advertisements to the consumer" (Br. 9) is not commensurate in scope with claim 1. That is, claim 1 does not require the advertising generator to generate an advertisement based on metadata.[3] Rather, claim 1 only requires advertisement generation based on "the one or more consumer identifying characteristics." In

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[2] *See* 17 U.S.C. § 401(b)(3) (Samuels 2007) ("Notice of copyright: Visually perceptible copies": form of copyright notice shall include "the name of the owner of copyright in the work") (last amended Oct. 31, 1988).
[3] For an alternative claim interpretation, *see infra* note 4 and related discussion.

accordance with this claim interpretation, Appellants do not dispute the Examiner's finding that McIntyre's kiosk generates advertisements by acquiring one or more consumer identifying characteristics via the analysis of object and text data in a photograph. (Ans. 3-4.)

While Appellants argue (Br. 7) that the "image provider, not the consumer" in Davis decides what "information to embed in the image," the argument fails to address the Examiner's rejection. In other words, according to the Examiner's rejection, McIntyre's consumer, the photographer, would have employed Davis's watermarking system to enhance McIntyre's consumer photographs. (*See* Ans. 9-10 (modifying McIntyre's system).)

For example, the Examiner proposed modifying McIntyre's system, using Davis's system, to include a scenario in which a consumer enters metadata (into photograph watermarks) such as the statement "'trip to Hawaii'" (Ans. 9) as a means to identify certain photographs associated with the consumer's trip to Hawaii. (Ans. 9-10.)[4] The Examiner also reasoned that Davis teaches relating metadata to an image using all types of "additional content or functionality." (Ans. 9, *accord* FF 1, 3.) Appellants disclose similar geographical data as corresponding to the disputed consumer characteristic metadata of claim 1. (FF 5.) Appellants do not

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[4] Even if claim 1 were read as requiring generating an advertisement based on reading metadata, the Examiner also found, without rebuttal by Appellants, that analysis of this information "would lead to an intelligent advertising decision and output [sic] an advertisement appropriate to the digital image, such as a deal on airfare or hotel accommodations to Hawaii." (Ans. 9-10.)

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respond to this line of reasoning by the Examiner, and therefore, fail to demonstrate error in the Examiner's rejection.

Finally, while Appellants provide examples (*see* FF 4-5), Appellants do not define a "consumer characteristic." Accordingly, under an alternative claim interpretation, the disputed limitation in claim 1 is broad enough to encompass reading on Davis's watermarks even if they merely point to other data sources (assuming for the sake of argument, that a consumer's name, location, or other information proposed by the Examiner, does not constitute metadata).

That is, Appellants accurately point out that Davis's watermark metadata points to another data source (Br. 6; FF 2-3). The metadata payload may point to associated video, animation, sound, or other executable applications. (FF 3.) Appellants characterize this metadata as "'image characteristic' rather than 'consumer characteristic'" (Br. 7). However, under this alternative claim interpretation, Davis's "image characteristic" metadata reasonably constitutes "consumer characteristic" metadata because it reveals, for example, that a particular consumer may be relatively tech savvy and/or enjoy computer related gadgets and/or media. Or, a metadata pointer to sound data might imply that a particular consumer enjoys downloadable music. These inferences based on Davis's different metadata types are similar to inferences based on Appellants' GPS metadata. (*See* FF 5 (inferring a consumer preference for Disneyland ™ products based on GPS metadata indicating Disneyland ™ as the location of a photographed subject).)

Based on the foregoing discussion, incorporating Davis's digital image watermark metadata system into McIntyre's digital image advertising

system satisfies the disputed limitation of claim 1. Appellants' arguments do not demonstrate Examiner error in the rejection of claim 1 and the remaining claims on appeal falling therewith as not separately argued. *In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987).

CONCLUSION

Appellants did not show that the Examiner erred in finding that McIntyre and Davis collectively teach "reading consumer characteristic metadata associated with the digital image," as set forth in claim 1.

DECISION

We affirm the Examiner's decision rejecting claims 1, 5-10, 14-17, 23, and 24.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136. *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

KMF

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